KINDS OF ENERGY

Introduction

Energy is an important part of our world. It gives us light. It runs our cars and trains. Energy warms our homes. It cooks our food. It runs our computers and TVs. It helps us grow, move, and think. Everything we do is connected to energy.

What is Energy?

Energy is the ability to do work. It takes energy to make things move. Energy runs machines. Energy is found in many different forms. There is:

Sound Energy

Light Energy

Heat Energy

Electrical Energy

Chemical Energy

Mechanical Energy

Sound Energy

Sound energy is a form of energy we can hear. Sounds are made by things that vibrate. Sound energy moves in waves. A drum vibrates when it is hit. The vibrations move through the air. We can then hear the sound waves. Sound energy can move through air, solids, and liquids.

Light Energy

Light is a form of energy that we can see. The sun, light bulbs, and candles all give off light energy. Light passes through objects that are transparent. It is blocked by objects that are opaque. Opaque objects form shadows. Translucent objects allow some light to go through them.

Heat Energy

Heat is a form of energy we can feel. We use it for a lot of things. We use it to warm our homes and cook our food. An object's temperature is a measure of how much heat energy it has. When heat is added to an object, its temperature rises. The heat speeds up the particles within an object. Hotter objects have particles that move quickly. Cooler objects have slower moving particles. Heat energy always moves from warm places to cool places. Hold an ice cube in your hand. The particles in your hand are moving faster than the particles in the ice. Heat energy will move from your hand to the ice. This will cause the particles in the ice cube to speed up. The particles in your hand will slow down.

Electrical Energy

Electrical energy is the flow of electrical power or charge. It is one of the most common forms of energy we use. Current electricity is the flow of electrical charges in a wire. It can be used to light a bulb. Electrical current that flows through wires causes the filament in the bulb to heat up and glow.

Chemical Energy

Chemical energy is a form of energy stored in objects. A chemical change gives off chemical energy. A chemical change happens when materials mix to form something new. Batteries have chemical energy. Chemical changes occur inside a battery. The chemical changes make electrical charges. These charges flow through wires.

Mechanical Energy

Mechanical energy is the energy of motion. It is used to do work. It is the energy used to move parts of a machine. It is also the energy used when humans move. Mechanical energy allows an object to put force on another object. The force causes the object to move or change. An example of mechanical energy is the wind turning the blades of a windmill.

Changing Energy

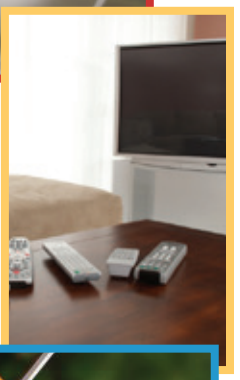
Plants use light energy from the sun. Plants change the light energy from the sun into chemical energy. They also store the chemical energy as food. The chemical energy helps the plants grow.

Animals cannot make their own food. They get their energy from eating plants or animals that eat plants. The food has chemical energy. The body breaks down the food that is eaten. Your body uses the energy to live and grow. Animals can also store the energy from plants in their bodies.

A car engine can change energy to a new form. A gasoline engine in cars changes the chemical energy in gasoline into heat energy. The heat energy makes hot air that moves the parts of the car. Then the car moves.

Many things change electrical energy into other forms. A light bulb changes electrical energy to light and heat energy. A toaster changes electrical energy into heat and light energy. A television changes electrical energy into light and sound energy. A radio changes electrical energy to sound energy.

When we play an instrument, we move the parts of the body. This is mechanical energy. The mechanical energy is changed to sound energy as the music is played. The music is heard from the instrument.



Conclusion

There is the same amount of energy today as when the world began. Energy cannot be made. It cannot be destroyed. When we use energy, we don't use it up. We only change it into other forms.

Electrical Circuits
Kinds of Energy

Correlation

Fountas & Pinnell	**S**	
DRA	**40**	
Estimated Lexile Measure	**790**	

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Designed and Printed by the BOCES 2 Printing and Graphics Services.

10/13

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